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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			CHOW, DOON Y	
		ART UNIT	PAPER NUMBER	
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DATE MAILED: 05/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/829,078	HIYAMA ET AL. 
	Examiner	Art Unit
	Dennis-Doon Chow	2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06 February 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-38 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 2, 11, 12, and 36-38 recite "a plurality of pixels in one of said one block units" and "said plurality of pixels in an other of said one block units". It appears that the "said plurality of pixels" refers to the "a plurality of pixels". However, how can the same plurality of pixels be located at two different block units.

Claims 3-10, and 13-35 are rejected as being dependent on a rejected base claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-3, 5 and 8-10** are rejected under 35 U.S.C. 102(e) as being anticipated by Akimoto et al. (hereinafter "Akimoto"), US 6,329,973.

As pertaining to claims 1, 2, and 8-10, Akimoto teaches image display apparatus for displaying images, figure 3 depicts the image display apparatus in which the matrix display is

divided into two different regions. Each region can be construed as one block unit having a predetermined number pixels that is defined within the matrix of 8 rows by 12 columns (col. 5, lines 24-44). Also, Akimoto teaches discriminating an image to be displayed in the block unit between a dynamic or moving image and a still image (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). Furthermore, Akimoto teaches the forming of one screen image for displaying two different images (information) on two different regions (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3).

As pertaining to claim 3, Akimoto teaches the respective regions can be switched into different regions that are equal to or greater than one block unit (col. 5, lines 24-42; col. 6, lines 11-20). Claim 3 is dependent on claims 1 or 2 and is rejected on the same basis and what is stated above.

As pertaining to claim 5, Akimoto teaches the one screen image is consisted of frames in number less than or equal to number of plurality of pixels forming one block unit and plurality of pixels are selected per frame (col. 2, lines 28-37; col. 5, lines 45-67; col. 6, lines 1-5, 30-38). Claim 5 is dependent on claims 1 or 2 and is rejected on the same basis and what is stated above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto.

As pertaining to claim 4, Akimoto discloses the discriminating of the still image being either gradation, monochromatic color or multicolor (col. 7, lines 6-12). So it would be obvious that Akimoto discloses displaying the plurality of pixels for a still image of low definition level. Claim 4 is dependent on claims 1 or 2 and is rejected on the same basis and what is stated above.

6. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto as applied to claim 1 or 2 above in view of Akiyama, US 5,952,991.

As pertaining to claim 6, Akimoto discloses what has previously been stated above. Also, Akimoto discloses LCD in which a TFT switch is used. It is well known in the art and inherently known that a TFT-LCD will consist of plurality of scanning lines and a plurality of signal lines arranged in a matrix fashion; switches formed at the intersections of scanning and signal lines and is connected to each of the lines; furthermore, opposed electrodes and pixel electrodes connected to switches per plurality of pixels. Furthermore, Akimoto discloses driving waveforms of different levels for displaying information in one region and then displaying different information in another region (col. 4, lines 9-42, 66-67; col. 5, lines 1-65). In addition, Akimoto discloses a plurality of signal lines formed with a plurality of scanning lines in a form of a matrix, a plurality of first switches formed corresponding to the intersection of scanning lines and first signal lines (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2); and a plurality of second switches formed between the second signal lines and first switches (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2).

As pertaining to claim 6, Akimoto does not disclose opposed electrodes and pixel electrodes connected to switches per plurality of pixels. It is well known in the art and inherently known that a TFT-LCD would consist of them.

As pertaining to claim 6, Akiyama does disclose plurality of scanning lines and a plurality of signal lines arranged in a matrix fashion; switches formed at the intersections of scanning and signal lines and is connected to each of the lines; furthermore, opposed electrodes and pixel electrodes connected to switches per plurality of pixels (col. 2, lines 25-67; col. 3, lines 1-24; col. 5, lines 33-57). Furthermore, Akiyama discloses the LCD is able to display moving or dynamic and still or static information on one screen image (col. 15, lines 43-54).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the LCD of Akiyama with the LCD of Akimoto.

The suggestion/motivation for doing so would have been to provide a display that encompasses all of the limitations of claimed invention, even though it is well known in the art and inherently known that TFT-LCD comprises all of the limitations of the claimed invention. Claim 6 is dependent on claims 1 or 2 and is rejected on the same basis and what is stated above.

7. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto as applied to claim 1 or 2 above in view of Shibahara, US 6,104,463.

As pertaining to claim 7, Akimoto discloses what has previously been stated above. Also, Akimoto discloses the forming of one screen image for displaying two different images (information) on two different regions (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). Furthermore, Akimoto discloses the discriminating of the still image being either gradation, monochromatic color or multicolor (col. 7, lines 6-12).

As pertaining to claim 7, Akimoto does not disclose the image display apparatus that has a lighting device, a pair of transparent substrates having a polarizing panel and a liquid

crystal layer in between the pair of substrates for applying an electrical field to the liquid crystal layer for controlling orientation for the display in the image and a blinking illustration of the lighting device.

As pertaining to claim 7, Shibahara discloses an image display apparatus that has a lighting device, a pair of transparent substrates having a polarizing panel and a liquid crystal layer in between the pair of substrates for applying an electrical field to the liquid crystal layer for controlling orientation for the display in the image and a blinking illustration of the lighting device to equalize the chromaticity (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the LCD of Shibahara with the LCD of Akimoto.

The suggestion/motivation for doing so would have been to provide a display that is able to control the chromaticity level and reduce the display nonuniformity. Claim 7 is dependent on claims 1 or 2 and is rejected on the same basis and what is stated above.

8. **Claims 11-12, 15 and 36-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto in view of Miyoshi, US 6,339,446 B1.

As pertaining to claims 11-12, and 15, Akimoto discloses an image display apparatus for displaying images, figure 3 depicts the image display apparatus in which the matrix display is divided into two different regions. The matrix can be construed as one block unit having a predetermined number pixels that is defined within the matrix of 8 rows by 12 columns (col. 5, lines 24-44). Also, Akimoto discloses discriminating an image to be displayed in the block unit between a dynamic or moving image and a still image (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). Furthermore, Akimoto discloses the forming of one screen image for displaying two

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different images (information) on two different regions (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). In addition, as figure 2 depicts, Akimoto discloses a still image memory 6, that can act like a frame memory, a dynamic image/still image discriminating circuit 17, a signal driver 42 and 44, a control signal driver 51 and 52 and pixel selection driver 41 and 43 (col. 3, lines 49-67; col. 4, lines 1-8, 66-67; col. 5, lines 1-23). Additionally, discriminating circuit 17 in conjunction with moving image decoder 3 allows for dynamic information to be displayed in the dynamic region and the discriminating circuit 17 in conjunction with still image memory 6 allows for still information to be displayed in the still region.

As pertaining to claims 11-12, and 15 Akimoto does not disclose specifically that still image memory 6 is a frame memory having different resolutions.

As pertaining to claims 11-12, and 15 Miyoshi discloses a device that displays still and moving images simultaneously on a display screen (fig. 3 and 5). Also, Miyoshi discloses separate components for each image, in which frame memories are used (col. 6, lines 6-22, 45-54). Furthermore, Miyoshi discloses the frame memories can be used to control different resolutions (col. 6, lines 55-63).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the frame memory of Miyoshi with the still image memory of Akimoto.

The suggestion/motivation for doing so would have been to provide a better display that is able to incorporate still/static and moving/dynamic information on one screen with different levels of resolution, so as to allow for a better picture, clearer picture etc.

As pertaining to claims 36-38, Akimoto discloses an image display apparatus for displaying images, figure 3 depicts the image display apparatus in which the matrix display is divided into two different regions. The matrix can be construed as one block unit having a predetermined number pixels that is defined within the matrix of 8 rows by 12 columns (col. 5,

lines 24-44). Also, Akimoto discloses discriminating an image to be displayed in the block unit between a dynamic or moving image and a still image (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). Furthermore, Akimoto discloses the forming of one screen image for displaying two different images (information) on two different regions (col. 4, lines 9-42, 66-67; col. 5, lines 1-65; fig. 3). In addition, as figure 2 depicts, Akimoto discloses a still image memory 6, that can act like a frame memory, a dynamic image/still image discriminating circuit/control device 17, a signal driver 42 and 44, a control signal driver 51 and 52 and pixel selection driver 41 and 43 (col. 3, lines 49-67; col. 4, lines 1-8, 66-67; col. 5, lines 1-23). Additionally, discriminating circuit 17 in conjunction with moving image decoder 3 allows for dynamic information to be displayed in the dynamic region and the discriminating circuit 17 in conjunction with still image memory 6 allows for still information to be displayed in the still region. Akimoto does not disclose specifically that still image memory 6 is a frame memory having different resolutions. Miyoshi discloses a device that displays still and moving images simultaneously on a display screen (fig. 3 and 5). Also, Miyoshi discloses separate components for each image, in which frame memories are used (col. 6, lines 6-22, 45-54).

9. **Claims 13-14, 17-23, 26-30, 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto and Miyoshi as applied to claim 11 or 12 above, and further in view of Shibahara.

As pertaining to claim 13, Akimoto and Miyoshi disclose what has previously been stated above. Furthermore, Akimoto discloses a first signal line and a second signal line formed with a plurality of scanning lines in a form of a matrix, a plurality of first switches formed corresponding to the intersection of scanning lines and first signal lines (col. 3, lines 49-67; col.

4, lines 1-8; fig. 2); and a plurality of second switches formed between the second signal lines and first switches (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2).

As pertaining to claim 13, they do not disclose a lighting device; a pair of transparent substrates having a polarization panel; a liquid crystal layer disposed between the pair of substrates; an opposed electrode on the substrate; an electric field applied between a pixel electrode and opposed electrode and an image being displayed by controlling orienting condition of liquid crystal.

As pertaining to claim 13, Shibahara discloses a lighting device; a pair of transparent substrates having a polarization panel; a liquid crystal layer disposed between the pair of substrates; an opposed or common electrode on the substrate; an electric field applied between a pixel electrode and opposed electrode and an image being displayed by controlling orienting condition of liquid crystal (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the LCD of Shibahara with the LCD of Akimoto and Miyoshi.

The suggestion/motivation for doing so would have been to provide a display that encompasses all of the limitations of claimed invention, even though it is well known in the art and inherently known that TFT-LCD comprises all of the limitations of the claimed invention.

As pertaining to claim 14, Shibahara discloses applying a lateral electrical field to the opposed or common electrode and pixel electrode (col. 1, lines 30-39). Claim 14 is dependent on claims 11 or 12 and is rejected on the same basis and what is stated above.

As pertaining to claim 17, Shibahara discloses a lighting device for moving light emitting region in synchronism with a scanning signal applied to the scanning line (col. 4, lines

9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claim 17 is dependent on claim 11 or 12, and 13 and is rejected on the same basis and what is stated above.

As pertaining to claim 18, Akimoto discloses a first signal line and a second signal line formed with a plurality of scanning lines in a form of a matrix, a plurality of first switches formed corresponding to the intersection of scanning lines and first signal lines (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2); and a plurality of second switches formed between the second signal lines and first switches (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2). It would be obvious that they would be formed on different substrates in order for the LCD to operate correctly. Shibahara discloses a lighting device; a pair of transparent substrates having a polarization panel; a liquid crystal layer disposed between the pair of substrates; an opposed or common electrode and pixel electrode connected to the first of second switches; an electric field applied between a pixel electrode and opposed electrode and an image being displayed by controlling orienting condition of liquid crystal (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claim 18 is dependent on claims 11 or 12 and is rejected on the same basis and what is stated above.

As pertaining to claim 19, Akimoto discloses a first signal line and a second signal line formed with a plurality of scanning lines in a form of a matrix, a plurality of first switches formed corresponding to the intersection of scanning lines and first signal lines (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2); and a plurality of second switches formed between the second signal lines and first switches (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2). Shibahara discloses a lighting device; a pair of transparent substrates having a polarization panel; a liquid crystal layer disposed between the pair of substrates; an opposed or common electrode on one of the substrates and pixel electrode connected to the second switches; an electric field applied between a pixel electrode and opposed electrode and an image being displayed by controlling

orienting condition of liquid crystal (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claim 19 is dependent on claims 11 or 12 and is rejected on the same basis and what is stated above.

As pertaining to claims 20-21, Shibahara discloses applying a lateral electrical field to the opposed or common electrode and pixel electrode (col. 1, lines 30-39). Claims 20 and 21 are dependent on claims 11 or 12 and 18 or 19 and are rejected on the same basis and what is stated above.

As pertaining to claims 22-23, Shibahara discloses applying a vertical electrical field to the opposed or common electrode and pixel electrode (col. 1, lines 15-23). Claims 22 and 23 are dependent on claims 11 or 12 and 18 or 19 and are rejected on the same basis and what is stated above.

As pertaining to claims 26-27, Shibahara discloses a lighting device for moving light emitting region in synchronism with a scanning signal applied to the scanning line (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claims 26 and 27 are dependent on claim 11 or 12, and 18 or 19 and are rejected on the same basis and what is stated above.

As pertaining to claim 28, Akimoto discloses a first signal line and a second signal line formed with a plurality of scanning lines in a form of a matrix, a plurality of first switches formed corresponding to the intersection of scanning lines and first signal lines (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2); and a plurality of second switches formed between the second signal lines and first switches (col. 3, lines 49-67; col. 4, lines 1-8; fig. 2). Shibahara discloses a lighting device; a pair of transparent substrates having a polarization panel; a liquid crystal layer disposed between the pair of substrates; an opposed or common electrode on one of the substrates and pixel electrode connected to the switches; an electric field applied between a pixel electrode and opposed electrode and an image being displayed by controlling orienting

condition of liquid crystal (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claim 28 is dependent on claims 11 or 12 and is rejected on the same basis and what is stated above.

As pertaining to claim 29, Shibahara discloses applying a lateral electrical field to the opposed or common electrode and pixel electrode (col. 1, lines 30-39). Claim 29 is dependent on claims 11 or 12 and 28 and is rejected on the same basis and what is stated above.

As pertaining to claim 30, Shibahara discloses applying a vertical electrical field to the opposed or common electrode and pixel electrode (col. 1, lines 15-23). Claim 30 is dependent on claims 11 or 12 and 28 and is rejected on the same basis and what is stated above.

As pertaining to claim 32, Shibahara discloses a lighting device for moving light emitting region in synchronism with a scanning signal applied to the scanning line (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10). Claim 32 is dependent on claim 11 or 12, and 28 and is rejected on the same basis and what is stated above.

10. **Claims 16, 24-25 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto, Miyoshi and Shibahara as applied to claim 11 or 12 or 13 or 18 or 19 or 28 above, and further in view of Nakakuki, US 6,160,593.

As pertaining to claims 16, 24-25 and 31 Akimoto, Miyoshi and Shibahara disclose what has previously been stated above. Shibahara does disclose the use of a color filter parallel to the scanning line (col. 4, lines 9-67; col. 5, lines 1-48; col. 7, lines 25-67; col. 8, lines 1-10).

As pertaining to claims 16, 24-25, and 31, they do not disclose the color filter being a stripe structure.

As pertaining to claims 16, 24-25, and 31, Nakakuki disclose the use of a stripe structured color filter (col. 2, lines 9-19).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the stripe structured color filter of Nakakuki with the color filter of Akimoto, Miyoshi and Shibahara.

The suggestion/motivation for doing so would have been to provide a better color filter for displaying higher resolution images. Claims 16, 24, 25 and 31 are dependent on claims 11 or 12, and 13 or 18 or 19 or 28 and are rejected on the same basis and what is stated above.

Response to Arguments

11. Applicant's arguments filed 2/6/04 have been fully considered but they are not persuasive.

Applicant argues that there is no disclosure or teaching in Akimoto of the claimed features of claim 1 and the other independent claims of this application of forming one screen image of a plurality of one block units which are formed of a predetermined number of pixels, wherein the same information is displayed on a plurality of pixels in one of the one block units during one scanning period in one region and respectively different information is displayed on the plurality of pixels in another one of the one block units in another region. The examiner disagrees with applicant's arguments because of the following reasons. Akimoto, in Fig. 3, teaches two block units which form one screen image information. This teaching clearly meets the requirement of *forming one screen image of a plurality of one block units which are formed of a predetermined number of pixels*. Akimoto further teaches rewriting the image information in the block

units once every scanning frame period. For example, the image information in the moving picture display area stays the same within a same scanning frame period. This teaching clearly meets the requirement of *the same information is displayed on a plurality of pixels in one of the block units during one scanning period in one region*. Akimoto further teaches the image information displayed on the still picture display area is different from the image information displayed on the moving picture display area. This teaching clearly meets the requirement of *different information is displayed on the plurality of pixels in another one of the block units*.

For the above reasons, the rejections stand.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 703-305-4398. The examiner can normally be reached on 8:30-6:00, Alternate Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras can be reached on 703-305-9720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Chow
April 30, 2004



DENNIS-DOON CHOW
PRIMARY EXAMINER